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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/691,640 | 10/24/2003 | Wei-Pang Huang | BHT-3167-160 | 7621 |

7590 03/07/2005
BRUCE H. TROXELL
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5205 LEESBURG PIKE
FALLS CHURCH, VA 22041

EXAMINER

HUYNH, ANDY

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2818

DATE MAILED: 03/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-----------------|-----------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/691,640 | HUANG, WEI-PANG | |
| | Examiner | Art Unit | |
| | Andy Huynh | 2818 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 and 4 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claims 1-6 are pending in this application is acknowledged.

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in TAIWAN, 92119704 on 07/18/2003.

Claim Objections

Claim 3 is objected to because of the following reasons.

In lines 7-8, "... wherein the surface of ..." should read "... wherein a surface of ...--", and "oxidized" should read --oxidized--.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fig. 1 of Prior Art, Applicant's admitted prior art (AAPA), in view of Park et al. (US 2003/0143319 A1 hereinafter referred to as "Park").

Regarding claims 1-2, Fig. 1 of AAPA discloses and its corresponding texts as set forth in paragraphs [0004]-[0005] of the specification, an active matrix organic electroluminescence display device comprises:

a thin film transistor 1, comprising:

a gate metal 11 disposed on a substrate;

a dielectric insulation layer 12 covering said gate metal and said substrate;

a source/drain metal 13 disposed on said dielectric insulation layer and above said gate metal; and

a passivation layer covering said source/drain metal; and

an organic light emitting diode 2, comprising:

an anode electrode 21 connected to said source/drain metal;

an organic emitting layer 22 formed on said anode electrode; and

a cathode electrode 23 formed on said organic emitting layer.

Fig. 1 of AAPA fails to teach a passivation layer is a multi-layer structure wherein each layer of the multi-layer structure is made of a different material. However, Park teaches that a passivation layer is formed in a flat panel display device as a protection film for the device, and the passivation film may be formed with a multi-layer structure of the inorganic insulating film and the organic insulating film as set forth in paragraph [0056]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teaching of the passivation film being a multi-layer structure and each layer of the multi-layer structure is made of a different material, as taught by Park to incorporate into and modify the passivation layer of

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Fig. 1 of AAPA to arrive the claimed limitation including the multi-layer structure in order for better protection.

Regarding claims 5-6, Fig. 1 of AAPA discloses and its corresponding texts as set forth in paragraphs [0004]-[0005] of the specification, an active matrix organic electroluminescence display device comprises:

a thin film transistor 1, comprising:

a gate metal 11 disposed on a substrate;

a dielectric insulation layer 12 covering said gate metal and said substrate;

a source/drain metal 13 disposed on said dielectric insulation layer and above said gate metal; and

a passivation layer covering said source/drain metal; and

an organic light emitting diode 2, comprising:

an anode electrode 21 connected to said source/drain metal;

an organic emitting layer 22 formed on said anode electrode; and

a cathode electrode 23 formed on said organic emitting layer.

Fig. 1 of AAPA fails to teach a passivation layer is composed by a high dielectric material, and made of SiO₂. However, Park teaches that a passivation layer is formed in a flat panel display device as a protection film for the device, and the passivation film is made of an inorganic insulating film, for example SiO₂, as set forth in paragraphs [0063] and [0066]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teaching of the passivation film made of SiO₂, as taught by Park to incorporate into Fig. 1 of AAPA to arrive the claimed limitation not only to have a good characteristic at a low

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temperature but also maintain the lifetime and characteristic of the device as set forth in paragraph [0068].

Allowable Subject Matter

Claims **3 and 4** are allowed.

The following is a statement of reason for the indication of allowable subject matter: The prior art of record fails to teach or render obvious an active matrix organic electroluminescence display device comprises, in combination with all other features, a passivation layer wherein a surface of the passivation layer is thermally oxidized as recited in independent claim **3**.

Conclusion

A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the day of this letter. Failure to respond within the period for response will cause the application to become abandoned (see M.P.E.P 710.02(b)).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy Huynh, (571) 272-1781. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The Fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the -status of this application or proceeding should be directed to the receptionist whose phone number is (703) 308-0956.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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03/02/05



Andy Huynh

Patent Examiner